

Applicant : Graeme C. McKinnon  
Serial No. : 09/804,430  
Filed : August 10, 2000  
Page : 5 of 8

Attorney's Docket No.: 10527-651RE1 / PC8721B

### REMARKS

Claims 1-50 and 52-69 are pending. Claims 28-34, 40-50 and 53-64 are rejected. Claims 35-39 and 52 are objected to. The applicant respectfully traverses the rejections and requests reconsideration in view of the amendments and remarks below.

#### **I. Teleconference with Examiner**

The applicant's representative, Brenda Leeds Binder, spoke briefly with Examiner Smith on the telephone on October 17, 2005. The Advisory Action was discussed and the Examiner clarified her reasons for asserting that Robinson discloses an open ended conductive element.

#### **II. The 103 Rejections**

##### Claims 28-34

The Examiner asserts in the Advisory Action dated October 13, 2005, that US Patent No. 5,347,221 ("Robinson") does include an open ended conductive element because "[t]he claim language does not preclude an additional element of the plug 18 across the conductive element". The applicant maintains that the Examiner is mistaken. In fact, the claim language in claim 28 does preclude the plug 18. The claim requires "at least one open ended conductive element".

However, for the sake of expediting prosecution, the applicant has further amended claim 28 to include that the antenna is an "open wire length" antenna. The Examiner stated in the Advisory Action, in reference to Robinson, that "the entire structure may not be open ended but the conductor [*sic*] length includes at [*sic*] open ended conductive element that is then closed off by the plug." As amended, the claim requires an open wire length antenna, *i.e.*, the antenna structure is an open wire length antenna.

Robinson does not disclose an open wire length antenna. Robinson discloses a probe including inner and outer conductors that are electrically short circuited to one another by a plug at a distal end of the probe (Col. 5, lines 45-47). Referring to Robinson's Figure 1, the probe 10 includes a central conductor 16 that is electrically connected to a conductor 26 extending from a connector 14, so an electrical path is provided from the conductor 26 through the central conductor 16 to the plug 18 and the outer conductor 12 back to the shell of the connector 14. The inner and outer conductors of the probe 10 are electrically short circuited to one another by

Applicant : Graeme C. McKinnon  
Serial No. : 09/804,430  
Filed : August 10, 2000  
Page : 6 of 8

Attorney's Docket No.: 10527-651RE1 / PC8721B

the plug 18. Because the inner and outer conductors of the probe 10 are electrically connected, they form a closed conductive path. In short, the plug 18 creates a closed ended conductive path. Accordingly, the inner and outer conductors of Robinson are not open ended conductive elements and the probe is not an open wire length antenna. Thus, Robinson does not disclose an open wire length antenna as required by the claim 28. Claims 29-39 depend from claim 28 and are therefore allowable for at least the same reasons as claim 28.

#### Claims 40-48

Claims 40 recites a method of generating an image of a wall of a body cavity in a patient. The method includes inserting an open wire length antenna including an open conductor length into the cavity, where the open conductor length includes at least one open ended conductive element, and generating a magnetic field gradient and EM radiation external from the patient. As discussed above in reference to claim 28, Robinson does not disclose an open wire length antenna. Accordingly, claim 40 is allowable over Robinson. Claims 41-48 depend from claim 40 and are therefore allowable for at least the same reasons as claim 40.

#### Claim 49

Claim 49 recites a method of generating an image of a blood vessel wall of a blood vessel in a patient. The method includes inserting an open wire length antenna including an open conductor length into the blood vessel, where the open conductor length includes at least one open ended conductive element. A magnetic field gradient and EM radiation is generated external from the patient. As discussed above in reference to claim 28, Robinson does not disclose an open wire length antenna. Accordingly, claim 49 is allowable over Robinson.

#### Claims 50 and 52-53

Claim 50 recites a medical apparatus for imaging a blood vessel wall by interacting with an MRI system which generates a magnetic field gradient and EM radiation external from the patient. The apparatus includes an open wire length antenna having an open conductor length including at least one open ended conductive element. As discussed above in reference to claim 28, Robinson does not disclose an open wire length antenna. Accordingly, claim 50 is allowable

Applicant : Graeme C. McKinnon  
Serial No. : 09/804,430  
Filed : August 10, 2000  
Page : 7 of 8

Attorney's Docket No.: 10527-651RE1 / PC8721B

over Robinson. Claims 52-53 depend from claim 50 and are therefore allowable for at least the same reasons as claim 50.

#### Claims 54-55

Claim 54 recites a medical apparatus for imaging a body cavity wall of a body cavity of a patient by interacting with an MRI system which generates a magnetic field gradient and EM radiation external from the patient. The apparatus includes an MRI open wire length antenna configured to be inserted into the body cavity, and includes an open conductor length having at least one open ended conductive element. As discussed above in reference to claim 28, Robinson does not disclose an open wire length antenna. Accordingly, claim 54 is allowable over Robinson. Claim 55 depends from claim 54 and is therefore allowable for at least the same reasons as claim 54.

#### Claims 56-64

Claim 56 recites a method of generating an image of a wall of a body cavity in a patient. The method includes inserting an MRI open wire length antenna into the body cavity, the open wire length antenna including an open conductor length having at least one open ended conductive element. As discussed above in reference to claim 28, Robinson does not disclose an open wire length antenna. Accordingly, claim 56 is allowable over Robinson. Claims 57-64 depend from claim 56 and are therefore allowable for at least the same reasons as claim 56.

### **III. The Allowable Subject Matter**

Claims 1-27 and 65-69 are allowable. Claims 35-39 and 52 are objected to as being dependent upon a rejected base claim. In view of the remarks above, the applicant respectfully submits that claims 35-39 and 52 are in condition for allowance.

Please deduct \$450 from Deposit Account No. 06-1050 for the Petition for Two Month Extension of Time fee. Please apply any other charges or credits to Deposit Account No. 06-1050.

Applicant : Graeme C. McKinnon  
Serial No. : 09/804,430  
Filed : August 10, 2000  
Page : 8 of 8

Attorney's Docket No.: 10527-651RE1 / PC8721B

Respectfully submitted,

Date: Nov 29/05

Bleed  
Brenda M. Leeds Binder  
Reg. No. 57,520

Fish & Richardson P.C.  
500 Arguello Street, Suite 500  
Redwood City, California 94063  
Telephone: (650) 839-5070  
Facsimile: (650) 839-5071

50314488.doc